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### REMARKS

Claims 1-3, 6, 9, 10-11, 14 and 23-26 are all the claims presently pending in the application. Claims 4-5, 7-8, 12-13 and 15-17 have been canceled.

While the claim amendments made herein may help to distinguish the invention over the prior art, Applicant's intention in making the amendments is for the purpose of particularly pointing out the invention, and not for the purpose of distinguishing the invention over the prior art, narrowing the claims, or for any statutory requirements of patentability. Further, notwithstanding any claim amendments made herein, Applicant's intent is to encompass equivalents of all claim elements, even if amended herein or later during prosecution.

Claims 1-2, 6, 10, 14 and 22-26 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Chetverikov, Dmitry  
<http://www.inf.uszeget.hu/~SSIP/2001/handouts/chetverikov/by> (hereinafter, "Chetverikov") in view of Matsugu (US Patent 6,636,635).

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Chetverikov and Matsugu, and further in view of Roundhill et al. (US Patent 6,447,453).

Claims 9 and 11 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Chetverikov and Matsugu, and further in view of Yang et al. (US Patent 6,580,810).

These rejections are respectfully traversed in view of the following discussion.

#### **I. THE CLAIMED INVENTION**

An exemplary aspect of the claimed invention (e.g., as recited in claim 1) is directed to a method of detecting whether an image to be processed includes an image of a characteristic portion, including imaging a subject at a location to form an image to be processed, and obtaining information about a distance between the subject and the location, using the information to set upper and lower limitations on a size range of a search window for an image of a characteristic portion with reference to a size of the image to be processed, determining a size of the search window within the size range between the upper and lower limitations, cutting sequentially plural images having a predetermined size from the image to

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be processed, a size of the cut images being limited based on the determined size of the search window, comparing the cut images with a template of a plurality of templates corresponding to the image of the characteristic portion, if any template of the plurality of templates conforms in size to the determined size of the search window, and comparing the cut images with a resized template which is resized from a template of the plurality of templates, if no template of the plurality of templates conforms in size to the determined size of the search window (Application at Figure 2; page 19, line 19-page 20, line 17).

These features may help to reduce a number of times that a comparison is performed, to speed up processing and increase precision.

## II. THE ALLEGED PRIOR ART REFERENCES

### A. Chetverikov and Matsugu

The Examiner alleges that Chetverikov would have been combined with Matsugu to form the invention of Claims 1-2, 6, 10, 14 and 22-26. Applicant submits, however, that these references would not have been combined and even if combined, the combination would not teach or suggest each and every feature of the claimed invention.

However, Applicant respectfully submits that these alleged references are unrelated. Indeed, no person of ordinary skill in the art would have considered combining these disparate references, absent impermissible hindsight.

In fact, Applicant submits that the references provide no motivation or suggestion to urge the combination as alleged by the Examiner. Indeed, these references clearly do not teach or suggest their combination. Therefore, Applicant respectfully submits that one of ordinary skill in the art would not have been so motivated to combine the references as alleged by the Examiner. Therefore, the Examiner has failed to make a prima facie case of obviousness.

Moreover, neither Chetverikov, nor Matsugu, nor any alleged combination teaches or suggests *"comparing the cut images with a template of a plurality of templates corresponding to the image of the characteristic portion, if any template of the plurality of templates conforms in size to the determined size of the search window; and comparing the cut images with a resized template which is resized from a template of the plurality of templates, if no template of the plurality of templates conforms in size to the determined size*

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*of the search window*", as recited, for example, in claim 1, and similarly recited in claim 10 (Application at Figure 2; page 19, line 19-page 20, line 17). As noted above, this may help to reduce a number of times that a comparison is performed, to speed up processing and increase precision.

Clearly, this feature is not taught or suggested by the cited references.

Indeed, Applicant would again point out that Chetverikov does not have a date thereon and therefore cannot be used as prior art against the present Application. The Examiner alleges on page 2 of the Office Action that "the website indicates that the page was last modified on November 6, 2001. Furthermore this is a handout for a lecture given in 2001 and therefore has at least a 2001 date". However, the Examiner has provided Applicant with no evidence to support his allegations. Therefore, the Examiner has not supported his allegation that Chetverikov is prior art against the claimed invention.

Moreover, Chetverikov simply teaches a method of template matching and feature detection. The Examiner attempts to rely on page 1, col. 1 in Chetverikov. However, this passage simply discloses a method of finding a pattern in an image.

That is, nowhere does Chetverikov teach or suggest comparing the cut images with a template of a plurality of templates corresponding to the image of the characteristic portion, if any template of the plurality of templates conforms in size to the determined size of the search window, and comparing the cut images with a resized template which is resized from a template of the plurality of templates, if no template of the plurality of templates conforms in size to the determined size of the search window, as recited in claim 1.

Similarly, Matsugu only discloses, in summary, the size of a template is calculated based on the focal length and/or the distance to the object (See, Col. 45-47).

The Examiner states that cols. 25-30 of Matsugu discloses "comparing the cut image with a template ... of the search windows" in claim 1. Further, the Examiner states "the template are resized if necessary (obviously if not necessary they will not be reduced or enlarged)" (See, Page 4, lines 16-20 of Office Action). Applicant disagrees.

According to Fig. 9 of Matsugu, an image sensing apparatus includes an image input unit A2, an image storage unit D2, an image data comparison unit E2 and an initial contour setting unit F2. The image input unit A2 senses and inputs a plurality of images under different image sensing conditions (col. 25, lines 60-61). The image storage unit D2 stores an

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image sensed by the image input unit A2 (col. 26, lines 7-8). The image data comparison unit E2 compares at least a pair of image data of a plurality of image stored in the image storage unit D2, and difference data of the plurality of images as a comparison result. The initial contour setting unit F2 sets an initial contour on the basis of the comparison result of the image data comparison unit E2 (col. 26, lines 13-15).

Contrary to the Examiner's allegation, if one of the plurality of images as a template is resized, one of ordinary skill in the art would naturally think that the difference data to set the initial contour are deteriorated, and at worst the appropriate difference data could not be detected by resizing the one of plurality of images.

That is, the Examiner's allegation that Matsugu teaches that "the template are resized if necessary" is clearly incorrect.

Thus, like Chetverikov, Matsugu clearly does not teach or suggest comparing the cut images with a template of a plurality of templates corresponding to the image of the characteristic portion, if any template of the plurality of templates conforms in size to the determined size of the search window, and comparing the cut images with a resized template which is resized from a template of the plurality of templates, if no template of the plurality of templates conforms in size to the determined size of the search window, as recited in claim 1.

Therefore, Matsugu clearly does make up for the deficiencies of Chetverikov.

Therefore, Applicant submits that these references would not have been combined and even if combined, the combination would not teach or suggest each and every feature of the claimed invention. Therefore, Applicant respectfully request that the Examiner withdraw this rejection.

#### **B. Roundhill and Yang**

The Examiner alleges that Chetverikov and Matsuga would have been further combined with Roundhill to form the invention of **Claim 3**, and with Yang to form the invention of **claims 9 and 11**. Applicant submits, however, that these references would not have been combined and even if combined, the combination would not teach or suggest each and every feature of the claimed invention.

However, Applicant respectfully submits that these alleged references are unrelated.

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Indeed, no person of ordinary skill in the art would have considered combining these disparate references, absent impermissible hindsight.

In fact, Applicant submits that the references provide no motivation or suggestion to urge the combination as alleged by the Examiner. Indeed, these references clearly do not teach or suggest their combination. Therefore, Applicant respectfully submits that one of ordinary skill in the art would not have been so motivated to combine the references as alleged by the Examiner. Therefore, the Examiner has failed to make a prima facie case of obviousness.

Moreover, neither Chetverikov, nor Matsugu, nor Roundhill, nor Yang, nor any alleged combination teaches or suggests *"comparing the cut images with a template of a plurality of templates corresponding to the image of the characteristic portion, if any template of the plurality of templates conforms in size to the determined size of the search window; and comparing the cut images with a resized template which is resized from a template of the plurality of templates, if no template of the plurality of templates conforms in size to the determined size of the search window"*, as recited, for example, in claim 1, and similarly recited in claim 10 (Application at Figure 2; page 19, line 19-page 20, line 17). As noted above, this may help to reduce a number of times that a comparison is performed, to speed up processing and increase precision.

Clearly, this feature is not taught or suggested by the cited references.

Indeed, Roundhill simply discloses a method of analyzing cardiac performance using ultrasonic diagnostic images (Roundhill at Abstract).

That is, like Chetverikov and Matsuga, nowhere does Roundhill teach or suggest comparing the cut images with a template of a plurality of templates corresponding to the image of the characteristic portion, if any template of the plurality of templates conforms in size to the determined size of the search window, and comparing the cut images with a resized template which is resized from a template of the plurality of templates, if no template of the plurality of templates conforms in size to the determined size of the search window, as recited in claim 1.

Similarly, Yang simply teaches a method of image processing in three-dimensional head motion tracking. That is, like Chetverikov and Matsuga, Yang does not teach or suggest comparing the cut images with a template of a plurality of templates corresponding to the

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image of the characteristic portion, if any template of the plurality of templates conforms in size to the determined size of the search window, and comparing the cut images with a resized template which is resized from a template of the plurality of templates, if no template of the plurality of templates conforms in size to the determined size of the search window, as recited in claim 1.

Therefore, neither Roundhill, nor Yang make up for the deficiencies of Chetverikov and Matsuga.

Therefore, Applicant submits that these references would not have been combined and even if combined, the combination would not teach or suggest each and every feature of the claimed invention. Therefore, Applicant respectfully request that the Examiner withdraw this rejection.

### III. FORMAL MATTERS AND CONCLUSION

With respect to the Examiner's comment on page 2 of the Office Action that "the claims are determined to necessarily require a computer processor", Applicant notes that claim 1 was amended in the Amendment filed on May 15, 2009 to include "using an **imaging device** to image a subject...". Thus, it may be said that the method of claim 1 may require an imaging device, the method does not necessarily "require a computer processor". However, Applicant would note that the test for statutory subject matter under 35 USC 101 and *Bilski* is *not* "computer processor or transformation" but simply "machine or transformation". An "imaging device" is clearly a machine and thus, the claims are clearly directed to statutory subject matter under *Bilski*.

In view of the foregoing, Applicant submits that claims 1-3, 6, 9, 10-11, 14 and 23-26, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit

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any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

Date:

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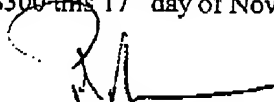


Phillip E. Miller, Esq.  
Registration No. 46,060

**McGinn IP Law Group, PLLC**  
8321 Old Courthouse Road, Suite 200  
Vienna, VA 22182-3817  
(703) 761-4100  
Customer No. 21254

**CERTIFICATION OF FACSIMILE TRANSMISSION**

I hereby certify that I am filing this Amendment Under 37 CFR §1.111 by facsimile with the United States Patent and Trademark Office to Examiner Sean T. Motsinger, Group Art Unit 2624 at fax number (571) 273-8300 this 17<sup>th</sup> day of November, 2009.



Phillip E. Miller, Esq.  
Registration No. 46,060